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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,898	01/15/2002	Tadakatsu Ikenoya	027650-946	2950

21839 7590 03/16/2004

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ALEXANDRIA, VA 22313-1404

EXAMINER

MUSSER, BARBARA J

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 03/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/936,898

Applicant(s)

IKENOYA, TADAKATSU

Examiner

Barbara J. Musser

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 3, it is unclear what is meant by melt flow index. Both melt index and melt flow ratio are conventional properties, but they are not the same thing, and it is unclear which property applicant intends. For the purposes of examination, this is assumed to be the melt flow rate.

Claim 6 recites the limitation "the reel shape laminate" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rebholz(U.S. Patent 4,387,126) in view of Bengtsson et al.(U.S. Publication 2003/0205319) and Badische(DE 1222241B).

Rebholz discloses a laminate made of a paper substrate, an adhesive, an aluminum foil, a primer, a coextruded barrier layer of ethylene-methyl acrylate copolymer, and a polyolefin film.(Abstract) Ethylene-methyl acrylate copolymer and ethylene methacrylic acid copolymer are the same polymer, simply named using different conventions. A primer is a type of anchor coat, and ethylene acrylic acid is a known anchor coat material. The reference does not disclose how the laminate is made, only that it can be made by means common in the art and that laminates are most easily prepared in subcombinations.(Col. 3, ll. 22-30) Bengtsson et al. discloses a conventional method of forming a laminate having aluminum foil in it is to apply the barrier layer(aluminum foil) to a carrier and then coextrude an adhesive layer to bond the carrier to the paper substrate.(paragraphs [0019], [0025], [0041], [0047]; Figure 6C) Since the stated purpose of Bengtsson et al.'s invention is to use the apparatus used to make laminates having aluminum foil to make laminate without aluminum foil, one in the art would understand that the apparatus of the reference was the same as an apparatus to form a laminate having aluminum foil.

The references do not disclose corona treating the aluminum foil before bonding it to the paper. Badische discloses that electric discharge treatment(corona discharge) of a metal surface increases the adhesion of a plastic film to the metal surface.(Abstract) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the process of Bengtsson et al. to make the laminate of Rebholz since Rebholz discloses any common method of making the laminate can be used and Bengtsson et al. discloses a common way of making a

laminate containing aluminum foil particularly since Bengtsson et al. forms the laminate using subcombinations(the foil and carrier) which Rebholz discloses is the most easy way to form such laminates(Col. 3, ll. 22-30) and to corona treat the aluminum foil before bonding it to the paper via a polyolefin since this would improve adhesive of the aluminum foil to the polyolefin.(Badische; Abstract) As shown in Figure 2, the barrier layer and carrier are on a roll, i.e. were formed together as a subcombination.

Regarding claim 2, while the references are silent as to the degree of contamination of the polyolefin film, one in the art would appreciate that since this is the layer that contacts the contents of the package, it would be desirable for the layer to have no contaminants as they might contaminate the food within the package.

Regarding claim 6, the references are silent as to the length of time the barrier layer and carrier are on the roll prior to use, but one in the art would appreciate that any conventional length of time, dependent on the desired stockpile and possible disruptions in processing, would be used.

5. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rebholz, Bengtsson et al., and Badische as applied to claim 1 above, and further in view of the admitted prior art.

Rebholz discloses the polyolefin film has a thickness of 1-2 mils(25-50 micrometers).(Col. 3, ll. 8) The references cited above do not disclose the polyolefin film as comprising a linear low density polyethylene with a narrow molecular weight distribution, an average density of 0.9-0.915, a peak melting point of 88-103 C, a melt flow index of 5-20, and a swelling ratio of 1.4-1.6. The admitted prior art discloses it is

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known to use metallocene based linear low density polyethylene in laminates for packaging. These polyethylenes have a narrow molecular weight distribution.(Pg. 3)

Low density polyethylenes are well-known to have a density less than 0.925. Melt flow rate is a measure of the width of the molecular weight distribution, and since all metallocene polyethylenes have a narrow molecular weight distribution, they would have melt flow rates of 5-20. The melting temperature and swelling ratio are a function of the density and molecular weight distribution. Since the admitted prior art has the same density and molecular weight distribution, it would have the same melting temperature range and swelling ratio. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the metallocene based linear low density polyethylene of the admitted prior art as the polyolefin film of Rebholz, Bengtsson et al., and Badische since the admitted prior art discloses such films have been commonly used in packaging laminates in the past.

Regarding claim 4, the references cited above do not disclose the anchor coat having ascorbic acid or vitamin E in it. The admitted prior art discloses it is known to provide ascorbic acid in conjunction with L-ascorbic acid in the adhesive layer to remove oxygen and to prevent the oxygen remover(L-ascorbic acid) from bleeding out of the adhesive layer.(Pg. 4) It would have been obvious to one of ordinary skill in the art at the time the invention was made to place ascorbic acid and L-ascorbic acid in the anchor coat since they would both remove oxygen from the packaging and prevent the oxygen remover from bleeding out of the adhesive layer.(Pg. 4)

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rebholz, Bengtsson et al, Badische, and the admitted prior art as applied to claim 4 above, and further in view of Coutelle et al.(U.S. Patent 5,582,638).

The references cited above do not disclose a phyllosilicate in the anchor coat. Coutelle et al. discloses phyllosilicates can act as adhesive thickeners.(Col. 1, ll. 7-15) It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a phyllosilicate in the anchor coat since this would thicken it to the proper consistency.(Col. 1, ll. 7-15)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara J. Musser whose telephone number is (571) 272-1222. The examiner can normally be reached on Monday-Thursday; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571)-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BJM
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